

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A melt-blown, non-woven fabric having an average fiber diameter of 10 μm or less comprising polyarylene sulfide having a branched structure and a non-Newtonian coefficient of 1.05-1.20.
2. (canceled).
3. (canceled).
4. (canceled).
5. (canceled).
6. (previously presented): The melt-blown, non-woven fabric having an average fiber diameter of 10 μm or less according to claim 1, wherein said polyarylene sulfide is a reaction product of an alkaline metal sulfide, a dihaloaromatic compound and a polyhaloaromatic compound having 3 or more halogen substituents in one molecule, wherein 0.01-0.3 mol %, based on 100 mol % of said alkaline metal sulfide, of said polyhaloaromatic compound is added in a reaction to form the reaction product.
7. (canceled).

8. (previously presented): The melt-blown, non-woven fabric having an average fiber diameter of 10 μm or less according to claim 18, wherein said polyarylene sulfide is subjected to a thermal oxidation cross-linking treatment.

9. (canceled).

10. (original): The melt-blown, non-woven fabric according to claim 8, wherein said thermal oxidation cross-linking treatment is carried out at 160-260°C for 1-120 hours.

11. (withdrawn): A method for producing a melt-blown, non-woven fabric constituted by polyarylene sulfide fibers, comprising the steps of:

(a) melt-kneading polyarylene sulfide having a non-Newtonian coefficient of 1.05-1.20;

(b) extruding the melt-kneaded polyarylene sulfide through nozzles at 300-360°C and drawing the resultant polyarylene sulfide extrudate with a hot gas stream at 300-360°C to form extremely fine polyarylene sulfide fibers having an average diameter of 10 μm or less; and

(c) depositing said extremely fine polyarylene sulfide fibers on a collector.

12. (withdrawn): The method for producing a melt-blown, non-woven fabric according to claim 11, wherein said polyarylene sulfide is synthesized by a reaction of an alkaline metal sulfide, a dihaloaromatic compound and a polyhaloaromatic compound having 3 or more halogen substituents in one molecule.

13. (withdrawn): The method for producing a melt-blown, non-woven fabric according to claim 12, wherein 0.001-0.6 mol%, based on 100 mol% of said alkaline metal sulfide, of said polyhaloaromatic compound is added in said reaction.

14. (withdrawn): The method for producing a melt-blown, non-woven fabric according to claim 11, wherein said polyarylene sulfide is subjected to a thermal oxidation cross-linking treatment before melt-kneading.

15. (withdrawn): The method for producing a melt-blown, non-woven fabric according to claim 12, wherein said polyarylene sulfide is subjected to a thermal oxidation cross-linking treatment before melt-kneading.

16. (withdrawn): The method for producing a melt-blown, non-woven fabric according to claim 14, wherein said thermal oxidation cross-linking treatment is carried out at 160-260°C for 1-120 hours.

17. (withdrawn): The method for producing a melt-blown, non-woven fabric according to claim 15, wherein said thermal oxidation cross-linking treatment is carried out at 160-260°C for 1-120 hours.

18. (previously presented): A melt-blown, non-woven fabric having an average fiber diameter of 10 μm or less comprising polyarylene sulfide having a cross-linked structure and a non-Newtonian coefficient of 1.05-1.20.

19. (canceled).

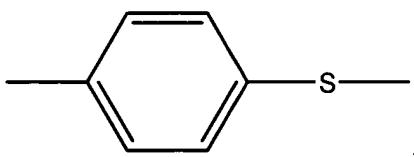
20. (canceled).

21. (currently amended): The melt-blown, non-woven fabric having an average fiber diameter of 10 μm or less according to claim 1, which has a non-Newtonian coefficient of 1.06-1.19.

22. (previously presented): The melt-blown, non-woven fabric having an average fiber diameter of 10 μm or less according to claim 1, wherein said polyarylene sulfide has a melt viscosity V_6 of from 295 to 400 poise, a non-Newtonian coefficient of 1.06-1.19 and an average fiber diameter in μm of from 5.7 to 9.5 μm .

23. (new): The melt-blown, non-woven fabric according to claim 1, wherein said polyarylene sulfide is a homopolymer.

24. (new): The melt-blown, non-woven fabric according to claim 1, wherein said polyarylene sulfide is a copolymer compound of 70 mol% or more of an arylene sulfide repeating unit represented by the formula



based on all repeating units in the polyarylene sulfide copolymer.